Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Department of Economics

Trade barriers on EU's agricultural market

Are farmers producing maize and the cocoa- & coffee industry in EU protected by tariffs?

Gustaf Svenungsson

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Abstract

The purpose and aim for this thesis is to determine if the European Union uses tariffs on cocoa, coffee and maize and the Common Agricultural Policy in such a way that it protects European farmers and workers on behalf of farmers and workers in less developed countries. The aim has been fulfilled both by a theoretical study and by calculations tariff escalation and the effective rate of protection on the three crops.

The findings from the study implicate that EU protects farmers and workers inside EU from competition from outside. For cocoa and coffee is the use of tariffs not as common as it is for maize. There exists nevertheless tariff escalation and effective rate of protection for all three crops, but it is not a big as it explains why the export to EU mostly is raw commodities. Probably are there other regulations, so called non-tariff barriers, that is an obstacle for developing countries so export value added coffee and cocoa products to EU.

The time frame and the level of the thesis has made it impossible to extend the work to also include non-tariff barriers

Key words: Agricultural trade, Effective Rate of Protection, Tariff Escalation, Common Agricultural Policy, International trade, EU's common market

Sammanfattning

Denna kandidatuppsats har som syfte haft att ta reda på om Europeiska Unionen skyddar bönder och livsmedelsindustri som odlar eller processar kaffe, kakao eller majs från konkurrens utifrån unionen via tullar och med den gemensamma jordbrukspolitiken. Detta syfte har uppnåtts via dels en litteraturstudie över tidigare forskning på området, den gemensamma jordbrukspolitikens historia och EU:s handelspolitik men också via att på räkna på tulleskaleringen och det effektiva skyddet på kaffe, kakao och majs.

Slutsatserna från forskningen är att EU använder tullar och den gemensamma jordbrukspolitiken på ett sådant sätt att inhemsk industri och inhemska jordbrukare premieras framför den utanför EU. Dock har skyddet sjunkit kraftigt sedan ratificeringen av Uruguay Rundan och MacSharry reformen av den gemensamma jordbrukspolitiken i mitten av nittiotalet. När det gäller kakao och kaffe är tullnivåerna så pass låga att det antagligen finns andra saker, så kallade icke tull barriärer, som hindar de stora producentländerna av kaffe och kakao att exportera förädlade kaffe- och kakaoprodukter till EU. För majs är tullarna fortfarande höga och på ett mer synligt sätt skyddas europeiska majsbönder från konkurrens utifrån.

Det finns flera ingångar för att fortsatt forska kring detta område. Det skulle bland annat vara intressant att se över tid hur exportflödena tull EU från de stora producentländerna av kaffe, kakao och majs har förändrats när tullnivåer har förändrats. Det vore också intressant att kolla på vilka icke tull barriärer som finns och räkna på hur mycket dessa skyddar industri och lantbrukare i Europa.

Nyckelord: Agricultural trade, Effective Rate of Protection, Tariff Escalation, Common Agricultural Policy, EU’s common market

Abbreviations

AVE	ad valorem equivalent
ACP	African, Caribbean and Pacific countries
CAP	Common Agricultural Policy
Cairns Group	Group of agricultural exporting countries
EC	European Community
ECSC	European Coal and Steel Community
EEC	European Economic Community
EPA	European Partnership Agreement
ERP	Effective Rate of Protection
EU	European Union
EUR	Euro
FAO	Food and Agriculture Organisation of the United Nations
GSP	Generalised Scheme of Preferences
HS	Harmonized System Codes
ICO	International Coffee Organisation
ITC	International Trade Centre
MFN	Most Favoured Nation
NTB	Non-trade barriers
OECD	Organisation for Economic Co-operation and Development
TW	Tariff wedge
UN	United Nations
WTO	World Trade Organisation

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Introduction

In this chapter will the history of agricultural trade be introduced, why the European Union Common Agricultural Policies where implemented and its effect. After that will the aim for this thesis and the research questions be introduced along with which crops that will be in the research and why they are selected. The section ends with an explanation on the research limitations and the thesis disposition.

1.1 Background

Even for 10 000 years ago people traded agricultural goods between them. First it was goods such as breeding animals, crops seeds, cuttings and farm technology but not so many fresh agricultural products since the transportation means were poor and the transactions costs were high. In the 1800s several things happened that accelerated globalization and agricultural trade. New chemical fertilisers, machinery and a development of more resistant plants made the farm productivity grow faster than ever before. Also did the invention of the steam engine caused a boost in the inter-continental agricultural trade due to the possibility to build faster and better ships. Transactions costs fell likewise the cost for transportation. These days, with air freight, can we enjoy fresh fruit that was harvested on the other side of the globe for a day ago. (Anderson, 2014).

Agricultural trade is today bigger than ever before but it has not grown as much as other trade sectors. This is because it is hard to keep the food fresh, quality reductions and fragility. But the biggest reason for why agricultural trade has not grown as much as other trade areas are political. Politicians has for reaching different objectives implemented policies that causes trade distortion and makes it harder than it could be to trade with agricultural products. The policies are implemented for reasons like national security, food regulations, health and nutrition standards and protectionism (Anderson, 2014).

When the European Coal and Steel Community (ECSC) were created in 1952 was it the first step towards the European Union (EU). The main goal with ECSC was to prevent a new big war in Europe by making war unthinkable by trade and regional integration. Now when ECSC has developed to EU and has grown from 6 to 28 member states has it become the world's biggest integrated market and the world's biggest economy (European Union, 2016).

The common market that were created in ECSC were protected by high tariffs and domestic producers were given export subsidies for exporting their products overseas. Farmers received even more protection when the common agriculture policy (CAP) were implemented. In the beginning of CAP was market price support given to farmers for guarantee them a certain price (Zobbe, 2001). This made the European price for food higher than the world market price, which resulted in more export subsidies for agricultural products since this made it possible for EC's food to compete on the world market by lowering the price. This caused large distortions on the world market and producers in developing countries were forced to compete against low cost import from Europe (Koo & Lynn Kennedy, 2005). Even if one of EU's main foundations is trade and liberalization of the economy is it often accused for having protectionist policies on agriculture and agricultural trade with foreign countries. Critics argued that the common agriculture policy (CAP) results in butter mountains and milk lakes and that it, together with tariffs, acts as a barrier for farmers from countries outside EU to sell their commodities on the European market (European Union, 2012).

CAP has since it was implemented been reformed several times and is more market oriented now than before and the European market is now more open for trade with agricultural products from outside EU than before. For example, where EU under the period 2006-2008 the biggest importer of agricultural products from developing countries and imported more food than US, Japan, Canada, Australia and New Zealand did combine (European Commission, 2010). Even if much has happened with CAP and EU's trade barriers argue still critics that EU is making farmers in less developed countries worse off (the Guardian, 2011).

With a background in these data, which conflict with each other and show different things, I think it would be interesting to see where the truth lies and determine the extent to which the EU protects its internal agricultural market. Therefore, this paper, by counting on tariff escalation an effective rate of protection for three agricultural products, ascertain protection of these crops.

The three crops, coffee, cocoa and maize that will be a part of this research are selected because they are major agriculture products, where coffee and cocoa are two of the three main tropical agricultural products (The Institute of Economic Affairs, 2012) and maize is the world most cultivated crop. (Business Insider, 2011). In developed countries is maize mostly use for feed and industrial production but in developing countries is it used as food and in some sub-Saharan countries do it stands for 30-50 % of the expenditure for low-income households. USA produces around 42 % of the maize and Africa 6.5 %, which force Africa to import 28 % of the maize they consume from other continents (International Institute of Tropical Agriculture, 2015). Coffee is the world's second most international traded commodity after oil. The two most common beans are Arabica and Robusta (International Institute of Tropical Agriculture, 2014). Cocoa is grown in West Africa, Southeast Asia and Latin America. The largest producer is Côte d'Ivore which stands for around 31 % of world production (International Institute of Tropical Agriculture, 2015). It is interesting to see if there are any difference in ERP and tariff escalation between maize on one side and coffee and cocoa on the other side because of maize is primary cultivated in developed countries while coffee and cocoa are cultivated in developing countries (International Trade Centre, 2016).

1.2 Purpose & research questions

Against the previous background, the aim of this thesis is to determine if and, in that case, by how much, EU protects the common market, EU-farmers and food processing industry inside EU. Two research questions will be answered for be able to reach the aim of this thesis.

1. *Does tariff escalation exist on coffee, cocoa and maize when imported to EU from the ten largest producing countries of each commodity or not?*

2. *Is the food industry inside EU processing coffee, cocoa and maize protected from competition from outside EU?*

This thesis will be useful for people with an interest for CAP, EU's trade policies and the effects of trade policy. It also interesting for people that want to know more about agricultural trade and the agricultural market. Hopefully will people after reading this thesis have more knowledge of the subject and be able to discuss the impact of CAP and trade policies better than before.

1.3 Limitations

This thesis will look at the impact that trade barriers in forms of tariffs has. It will not look at other kinds of trade barriers such as food standards, safety regulations and so on due to the short time frame and that it would make the thesis for advanced for a bachelor.

The thesis will only look at coffee, cocoa and maize due to the time frame and the struggle of finding correct data on prices and imported value. The three commodities are selected since they are important agricultural products and are among the most trade agricultural products. Only the top ten largest producers of each commodity are selected for being a part of the research. This is due to the fact that the ten largest producing country of each commodity stands for 77 % of EU's import of cocoa, 73 % of EU's import of coffee and 86 % of EU's import of maize.

It will be hard to drawn any generally conclusions because of their only are there commodities but it could give a glimpse on how it looks.

1.4 Disposition

The first section of this work give the reader a brief introduction to the subject, why it is interesting to do a work on the subject and how agricultural trade has changed through the years. The aim for this paper is presented along with the research questions that will be answered for reaching the objective.

In sections two is earlier research on subject reviewed which gives a better understanding on the subject and the questions. After that is theory relevant for the research presented.

In section three will the methodology for the thesis, the data sources and the equations for tariff escalation and effective rate of protection be introduced and discussed for giving a greater understanding for how the research have been conducted.

The results of the research will be presented in table and graphs in section four along with short texts that explain the numbers and results.

Section five will weave the result, theory and literature review together in a discussion part for demonstrate what the research have concluded and how it can be interpreted.

In section six is the research questions answered to and suggestions for future research are proposed.

2 Theoretical framework

This section starts with a briefing on earlier research relevant to this research and the results of these studies. After that will theory about how international trade works, which trade barriers that exist, their impact and how they are subdivided by the World Trade Organisation (WTO) be presented. Then there will be a section about EU's trade agreements with different countries, the story behind CAP and how it has changed during the decades.

2.1 Literature review

According to the Organisation for Economic Co-operation and Development (OECD) is the common market in EU protected and OECD points out that the agricultural market is one of the most protected market inside EU. The market access for agricultural commodities has however been wider and trade barriers have been reduced since the Uruguay Round (OECD, 2000). In a study from 2003 where ERP, when importing to EU, calculated for several agricultural goods. For paddy rice and livestock products where the ERP 240 % and for sugar 411.1 %. Other highly protected commodities were cereals with 56.1 % and vegetable oil and fats with an ERP on 22.1 %. Oilseed on the other hand has an ERP on -1.6 % (Antimiani, et al., 2003).

OECD also reports that in 2014 was agricultural export subsidy in EU about 12 million EUR, which can be compared with 67 million EUR 2013 and 3.7 billion EUR 2004. For the year 2012/2013 is EU's expenditure on export subsidies below the threshold level that EU has signed not to exceed. At the same time, OECD reports that EU import tariffs for non-agricultural goods was 4.2 % in 2012, compared with 13.2 % for agricultural goods, which indicates that even is the protection of agricultural has fallen, it is still higher than for non-agricultural goods (OECD, 2015)

International Coffee Organisation (ICO) estimated in 2011 that the ERP for importing roasted but not decaffeinated coffee to EU where 14.4 % when the applied tariff was 7.5 %. This could indicate to coffee roasters in developed and importing countries are favoured before coffee roaster in developing and exporting countries (International Coffee Organization, 2011).

In a working paper from 2012 from Institute of Economic Affairs is the tariff escalation for coffee, cocoa and tea calculated. One of the finding in the report is that tariff escalation is not a big problem when exporting coffee, cocoa or tea from developing countries to developed countries. The only developed country that have tariff escalation is Japan which has a tariff wedge as high as 8 % on coffee, 6 % on tea & 8 % on cocoa. Developing countries, such as, China has tariff wedge as high as 9 % on coffee, 21 % on cocoa butter and 12 % on cocoa powder. Iran has 9 % on coffee, 20 % on tea and 11 % on cocoa powder. Mexico has 52 % on coffee and 5 % on cocoa powder. Generally, is tariffs applied by developing countries higher than those applied by developed countries, probably for the reason that agriculture have a bigger share of the economy in low income countries and therefore is the government willing to protect it from competition from foreign countries (The Institute of Economic Affairs, 2012).

With respect to coffee, it is estimated that around 92 % of the global non-roasted coffee exports are grown in developing countries. On the other hand, stands developed countries for 96.7 % of the export of roasted coffee and the same accounts for cocoa. Developing countries

stands for 88.8 % of the export of cocoa beans, but only 49.2 % of the export of cocoa butter, fat and oil and 36.1 % of the export of cocoa powder with no added sugar. This shows that developing countries to some extent serve as producer of the primary agricultural products and that developed countries works add the value adding industry (The Institute of Economic Affairs, 2012).

The conclusion of the paper from Institute of Economic Affairs is that is it not the tariff escalation that developing countries faces that obstacle them from raising their export of processed commodities towards developed countries but the non-tariff barriers that developed countries use. These non-tariff barriers restrict market access for developing countries and force them to export raw commodities instead of value added commodities (The Institute of Economic Affairs, 2012).

According to Dubòn Guerra (2006) is the effect of the existing tariff regime that value adding industries in developed countries, such as coffee roasters, are given an advantage against coffee roasters in developing countries due to the tariff they have to pay when they export processed commodities. On the other hand, is it clear that the protection in form of tariffs has decreased in the latest years and that China and the Russian Federation are the only major countries with tariffs on coffee beans. Dubòn Guerra has also calculated the effective rate of protection for coffee. His conclusions that the effective tariff is higher than the applied one and lies around 20-30 % on most markets for coffee bean to roasted coffee. The result indicates that coffee industry in developed countries can, thanks to the protection, enjoy a higher value added than without the tariffs (Guerra, 2006).

There are not only tariff levels that acts like trade barriers. In a well cited article from 2004 argue Anderson and Wincoop that trade cost for industrialized countries, that is the cost for trading between two developed countries, is 170 % where 74 % accounts for international trade costs and 55 % local distribution (retail and wholesale). 44 % is related to border trade barriers and 21 % is the cost for transportation. Of this 44 % accounts trade barriers in form of tariffs for just 5 % between developed countries and around 10 % - 20 % for developing countries. If non-tariff barriers are included is the cost for directly trade distorted policies 8 % for developed countries. The rest of the 44 % consist of 14 % currency barrier, 7 % language barrier, 6 % information barrier and 3 % security barrier. For developing countries is the cost for international trade roughly two times higher than for developed countries due to bad institutions and infrastructure and the fact that transportations cost is less harmful against goods with a high value-to-weight ratio, which more processed goods have (Anderson & van Wincoop, 2004).

2.2 International trade theory

Without agricultural trade would it been impossible for swedes to enjoy wine from France and for Frenchmen to enjoy fermented Baltic herring from Sweden. When companies and countries trade with each other do they take advantage of their comparative advantage, which often result in that they specialise in producing some products and import the rest. When doing so all will be better off since more can output be produced with the same amount of capital and labour inputs. The agricultural products a country produce are in many ways decided by their external condition like, geographic location, quality of soil, available arable land and water availability. The external condition is hard to change both in the short and long run. However, in the long run can the amount of inputs used change. A country that has a lot of capital is said to be capital abundant (relative lower price on capital than on labour) and a country that is endowed with more labour is labour abundant (relative lower price on labour).

The Heckscher-Ohlin theorem state that a capital abundant country will produce capital intense goods and that a labour abundant country will produce labour intense goods. This will cause trade among countries due their comparative advantages in producing different goods. This trade will lead to a greater total welfare, an effective allocation of resources and tends to make the price on the same goods equal over the whole world (Koo & Lynn Kennedy, 2005)

However, agricultural goods and agricultural trade differ a bit from regular trade. Agricultural products are more perishable than other products. In developed countries is the agricultural sector relative small compared to least developed countries. This fact, and the fact that agriculture output depends a lot on the nature, makes it harder to predict process, supply and demand on the agricultural market than other trade sectors. This lead to that a relative small change in world price can have a large impact on a developing countries total economy. For example, if a large developed country that acts as an importer impose an import restriction this will cause a reaction in supply and demand in the world and will make developing countries worse off (Koo & Lynn Kennedy, 2005).

Countries and customs areas can sometimes protect their industry and market in different ways because they believe it will help them to achieve various objectives, such as creating domestic jobs, keeping money in the country and get a better trade balance. These three arguments are often used in defence for trade barriers but they are proven to be wrong or just working in the short run but in the long run they counteract their purpose by economists. There is some argument, according to economists, that can justify the usage of trade barriers. These are national security, protecting domestic industry from unfair trade from other countries and helping infant industries (Koo & Lynn Kennedy, 2005).

The most common way to protect markets is by import tariffs. There are several types of import tariffs, such as

Specific tariff – A fixed amount of money per unit good imported. It is calculated by $t = c$, where c is a fixed sum for each unit imported. This kind of tariff provide a high protection for cheaper goods but a lower protection for more expensive goods.

Ad valorem tariff – A fixed percentage of the price of the good per unit imported. It is calculated by $t = \alpha p$, where α is a fixed percentage of the price and p is the price of the good. The higher the price of a given good, the higher duty is.

Imports tariffs imposed by an importing country raise consumer price of the good in the importing country and decrease world market price. If the importing country is a large importer will the tariff have a huge impact but if it is a smaller importer will the tariff have a smaller impact on the world market. On the other hand, will producer in the importing country be better off due to a higher market price but producer in the rest of the world will be worse off due to lower world market price (Koo & Lynn Kennedy, 2005).

Export tariffs and exports subsidies are also used. An export tariff can be a specific tariff or an ad valorem tariff but the effect will be the same - a decrease in export, a higher world market price and a lower domestic price due to oversupply. Export subsides, the opposite to export tariffs is when producers receive money from the government for exporting their products to the world market. The reaction on this is a lower world market price due to a world oversupply. Implementation of export subsidies by a large exporter is good for consumers in the least developed countries but at the same time will farmers in this countries be

outcompeted by the low cost import. This can be problematic if the exporting country ends the export subsidy program since there can be too few farmers in the country for be able to supply their domestic market (Koo & Lynn Kennedy, 2005).

Nontariff trade barriers (NTB) exists as well. Example on different NTB is quotas, international cartels, antidumping duties, competition policies, customs valuation, quality standards and industrial standards and regulations. The usage of NTB appears to increased, which can be a result of bad international regulations of NTB's (Koo & Lynn Kennedy, 2005).

1994 were the Agreement on Agriculture as a part of the Uruguay Round signed. This agreement declares how to measure different types of domestic agricultural support and trade barriers. Three categories, called the Green, Blue and Amber (AMS) boxes were created. Different agricultural support and trade barriers are placed in these boxes. General society services, decoupled income support to farmers, environmental programs, social insurance or regional support can qualify for the green box. In the blue box can some direct support to farmers be put, if they are directly coupled to a fixed parameter like number of animals. Support that appears in the green or the blue box have a smaller effect on production output and is not viewed as trade distorting. In the amber box is programmes and support that have a big trade distortion effect or support that is directly coupled to production output put. Example is subsidies directly linked to output and price support programs. The support classified as amber support should be reduced according to the Agreement of Agriculture. The total monetary support from EU to farmers is at the same level today as it was 1995, when the reduce of amber classified support started but the support has changed from support classified as amber support to support classified as blue or green support. This evolution is shown in figure 2 (European Parliament, Directorate-General for Internal Policies, 2012).

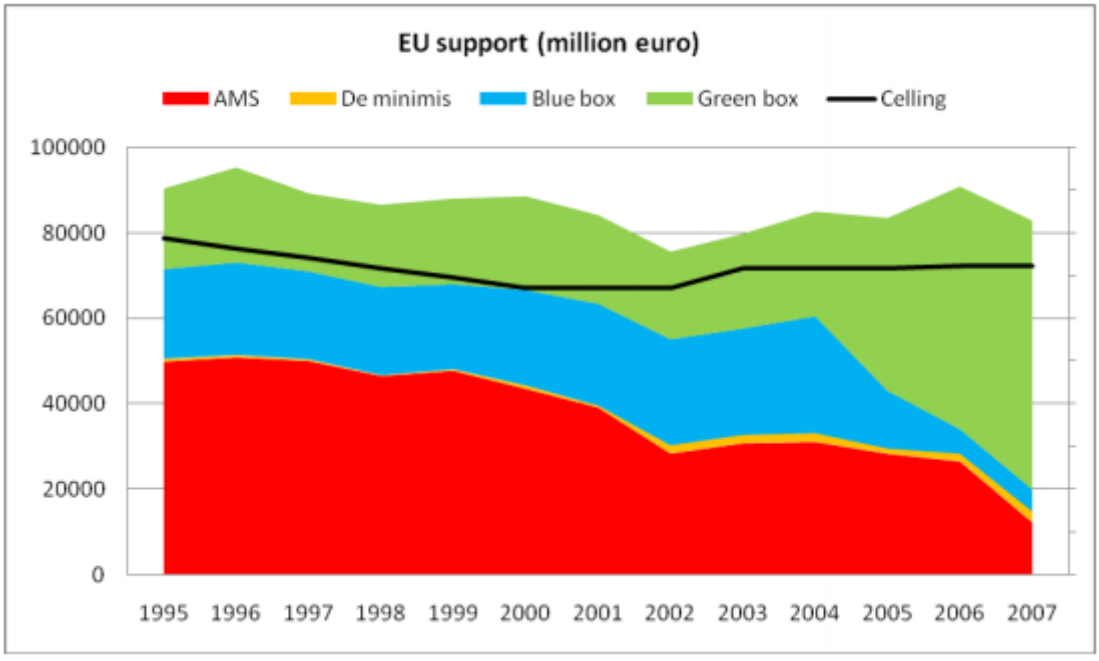

Figure 1. Evolution of EU's support, subdivided into the different boxes.

Source: (European Parliament, Directorate-General for Internal Policies, 2012)

2.3 EU trade agreements

Members of the European Union trades between each other without any trade barrier thanks to the common market. But member states also trades with non-members and then can bigger trade barriers exist. For reducing the impact of these trade barriers have EU signed bilateral trade agreements with many countries (European Commission, 2016). Some of these agreements are relevant for this research since they are between EU and some of the major producers. The relevant agreements are therefore listed below.

2.3.1 Most Favoured Nation

MFN is a trade regime that applies for all members of WTO. The meaning of MFN is that all member states must face the same tariff rate, a country cannot treat a country worse than another. Countries are however allowed to have trade agreements with other countries that gives lower tariff levels than MFN stipulated (World Trade Organization, 2016).

2.3.2 Generalised Scheme of Preferences

GSP is a variety of trade agreements that allows developing countries and EU to trade for no duty or for less duty than MFN stipulated. The regular GSP offers total or generous reduction on two thirds of all products categories. GSP+ offers a total removal on two third of all products, but only if the country has implemented international conventions on human and labour rights, good governance and environment (European Commission, 2016).

2.3.3 Economic Partnership Agreement

EPA is an agreement between EU and some African, Caribbean and Pacific countries (ACP) with the aim to increase trade and investment between EU and ACP countries and thus reduce poverty and act for a sustainable development. The agreements are special designed for each region and fully and immediately opens up the EU market for ACP countries. EPA offers a more freely market access in the agricultural sector than other trade agreements. Many of the products that ACP countries export to EU are agricultural primary products but the EPA agreements aims for a wider trade and therefore helps ACP's to shift to higher-value products and services, rather than just reliance on raw commodities (European Commission, 2015).

2.4 Common Agricultural Policy

In 1957, the Treaty of Rome signed to create, the European Economic Community (EEC) and the ending of ECSC, which is the forerunner to the European Community (EC) and later the European Union. Articles 38 to 47 in the Treaty of Rome covered agriculture. Even if there were no outlined policies for CAP in the treaty, article 40 stated that a common agricultural policy was to be implemented 1962 and five years forward. Article 39 state the aim for CAP. Article 39 says that the policies should (Zobbe, 2001)

1. to increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilisation of the factors of production, in particular labour;
2. thus to ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture;
3. stabilize the markets;
4. to assure the availability of supplies;
5. to ensure that supplies reach consumers at reasonable prices.

In 1960 did the European Commission presented a proposal for CAP which included these three principles

1. Free intra-community trade: no barriers to trade in agricultural products between the member states;
2. Community preference suppliers from within the Community were to be given preference in the market over those from outside Community
3. Common financing: funding for the CAP would be through a European budget for all revenues and expenditures generated but the policy.

The proposal from the European Commission was accepted and a common agricultural market with common tariff barriers were created. For be able to guarantee high prices to farmers implemented EU high import tariffs and export subsidies. At that time, the price for 100 kg butter in Europe 187.4 compared to a world price on 47.2 for 100 kg, which meant that EU had 4 times higher price. Sugar had a price 4,38 times higher and the price on husked rice were 1,17 times the world market price (Zobbe, 2001).

CAP has been reformed several times due to high costs for maintaining the implemented polices and also due to pressure from the outside world. The policies that were created and implemented in the sixties resulted in huge oversupply and created food mountains in Europe. As a result of the increase in food supply fell the world market price, which lead to higher cost for EC when they had to compensate farmers for the lower price and to an expansion in support program for farmers over the world. It also forced EC to increase their export subsidies to get rid of the food stocks. World market then become even ever more disorientated since EC's market share increased on the expense of agricultural exporting from non-EC countries, which resulted in that more countries use aggressive export policies for maintain their market share. It also affected developing countries in two ways, consumers were able to buy agricultural products from EC to a lower price than before but producers were forced to compete against unfair trade from EC. The trade war kept on until US and the Cairns Group in 1986 called for agricultural trade to be one the reform areas under the Uruguay Round (Patterson, 1997).

In 1992 where the first major reform of CAP when the MacSharry reform was implemented. It changed the way EC supported farmers, from production support to producer support, which mean that the price support is phased out and replaced with direct payments to farmers. The MacSharry reform lead to a 29 % decrease in cereal price, a 15 % decrease in beef support prices and a 5 % decrease in butter prices in three years (Patterson, 1997). The agricultural market in EC started to be more market oriented and less depending on subsidies from EC after the MacSharry reform (European Commission, 2012). At the same time, as a result of the Agreement on Agriculture in the Uruguay round, signed 1994, the import tariffs were cut with 36 % over six years, the export subsidies where cut with 36 % over six years and the volume of subsidised export where cut with 21 % over six years (European Commission, 2015).

2003 is the last link between subsidy and production gone and EU farmers receive income support only (and some environmental support). In 2013 reform are the main aims and goals of CAP stated to

1. Viable food production
2. Sustainable management of natural resources

Over the years has CAP, as share of EU's total budget gone from 73 % in year 1985 to 39 % in year 2013. This is due to the reforms of CAP and EU's growing budget. From 1996 has the

total amount spend on CAP been relative stabile but its share of EU's budget has gone from 57 % to 38 %. This is shown in figure 2. (European Commission, 2015).

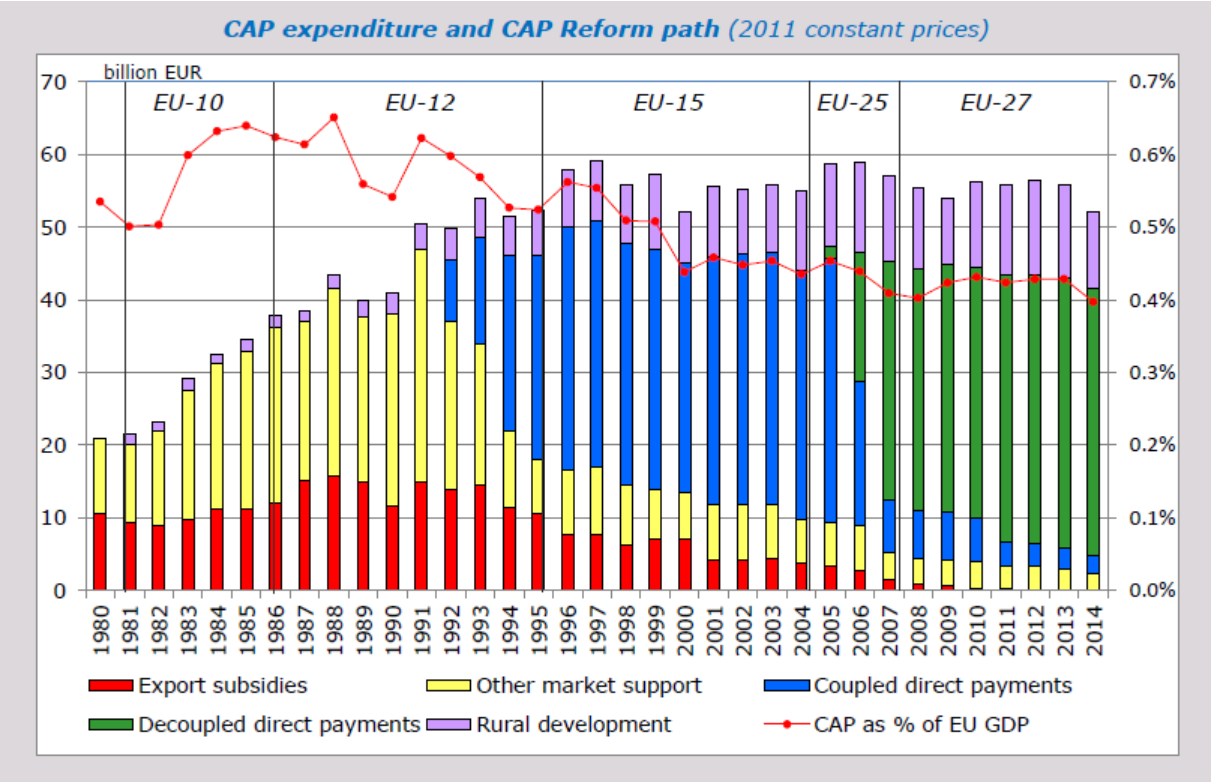

Figure 2. Evolution of CAP expenditure and support.

Source: (European Parliament, Directorate-General for Internal Policies, 2012)

2.5 Theoretical conclusions

The main findings from the literature review are that the protection of agricultural products has decreased since the Uruguay Round but that it is still higher than for other trade areas. Previous research has shown that tariff escalation is lower today than before and that it does not works as trade distortions as before. The same applies for the effective rate of protection. Non-tariff barriers have a larger effect on the protection of EU's common agricultural market than what the applied tariffs has according to the review.

Conclusions regarding international trade are that tariffs and export subsidies are applied by countries and customs areas for protecting their domestic market and for helping their producers export to the world market. This is used although the theory behind trade says that an effective allocation of resources will be done in a free market and not in a regulated.

CAP were implemented in the sixties with the aim to secure food production in Europe. This was done by setting up high import barriers and by giving farmers price support for always guarantee them high prices. The results of this were large food piles why export subsidies were put in place. The world market become heavily disoriented due to this until the MacSharry reform and the signing of the Uruguay Round, which forced the world to start cut in export subsidies, import barriers and support to farmers.

3 Methodology

This chapter provides details on where the data used in this thesis comes from. It also discussed the methods that were employed in the research.

3.1 Data

The study relied on multiple sources to compile data for the calculation of tariff escalation and the effective rate of protection. Market Access Map (www.macmap.org) were utilized to collect data on applied tariff rates. Information about applied import tariff rates from 2005 to 2015 can be found there. Information if a specific country has a trade agreement with EU can also be found here (International Trade Centre, 2016).

In Market Access Map is all tariffs recalculated as ad valorem equivalent (AVE), which is the percentage level of the value of the good when it goes through customs. When all commodities are expressed in the same way it is easy to compare tariff rates between different products and countries. Products in Market Access Map is classified in a series of number pursuant to the Harmonized System (HS) which is the standard system for international trade. HS simplify trade and lowering transactions costs since it makes labelling the goods easier (International Trade Centre, 2015).

FAOSTAT (www.faostat3.fao.org) is FAO's statistic division's database. With this database it is possible to find the ten biggest producer of each commodity. With another database from the United Nations, UNcomtrade (www.comtrade.un.org) is it possible to extract data on exported value to EU from all of the ten biggest producer of each commodity and the exported quantity. With these two number it is possible to calculate the EU import price per kilogram for all of the selected products from each country.

For receiving data on intra EU trade on commodities is Eurostat used, a database from the European Commission's statistical division. Here is it possible to gain the traded value inside EU and the traded quantities. With these two details can the intra EU prices calculated.

Both ITC and UNcomtrade has information about the value and the quantity of the exported products to EU from the biggest producers. But there is a problem with them since they give different numbers on the value and on the quantity exported. ITC reference their numbers back to UNcomtrade and therefore are the value for traded value and quantity used from UNcomtrade used in this work and the one from ITC. The data used in this work is from 2012 because that is the latest year data on all necessary details was able to be found.

3.2 Tariff escalation

Tariff escalation occurs in agricultural trade when a processed commodity is subject to a higher import tariff rate than the raw material. For example, if coffee beans are subject for a tariff rate on zero percent and roasted, decaffeinated, coffee (coffee that you buy in the supermarket) is subject for an import tariff rate on ten percent, then tariff escalation exists. The reason behind tariff escalation is that politicians want to protect the domestic industry and supply it with cheap raw material (Koo & Lynn Kennedy, 2005).

There is a major concern with the theory behind tariff escalation. It only measures the "floor" of the protection. The protection can thus be higher due to tariff structure, NTB and because

of it are not taking value added processing into account. (The Institute of Economic Affairs, 2012). The equation for calculating the tariff wedge (TW) is (Koo & Lynn Kennedy, 2005).

$TW = t_p - t_{in}$

Where t_p is (in ad valorem terms) the tariff rate on processed commodity
T_{in} is (in ad valorem terms) the tariff rate on raw commodity

If $TW > 5$, then tariff escalation occurs. If $TW < 0$, then the processed commodity has a lower tariff than the raw commodity.

3.3 Effective rate of protection, ERP

Effective rate of protection measure how large the protection of the value added to a product is. When tariff escalation only measures the "floor" of the protection is ERP measuring how large the protection really is. Tariff escalation do not take into account that processed commodities may need more inputs than just the raw material. When calculating the effective rate or protection is not this a problem because of its focus on the raw commodity's share of the processed output (Antimiani, et al., 2003).

The equation for calculating ERP is (Koo & Lynn Kennedy, 2005).

$$r_h = \frac{t_h - \propto_{ih} t_i}{1 - \propto_{ih}}$$

Where r_h is the effective rate of protection of the imported goods, expressed in percentage.
t_h is the nominal tariff on the imported finished good.
$\propto_{ih}$is the value of the imported goods as a share of the final product
t_i is the tariff on imported inputs

For receiving a good result is it crucial with specific data on prices and how the different production steps are linked to each other (The Institute of Economic Affairs, 2012). These data can be hard to find and are in this research calculated by dividing the value of the trade with the quantity of the trade. This gives both the import price and the intra EU price in euro/kg. The import price is divided with the intra EU price for receiving a value on $\propto_{ih}$.

4 Results

The results for the research question are in this section presented in graphs, tables and a brief explanation of the results are given. The results are subdivided into tariff escalation and ERP for better overview.

4.1 Tariff Escalation

4.1.1. Cocoa

Table 1 shows the value of the import from the ten biggest producers combined and is divided in different processed commodities according to HS-classification. As shown in table 1 is almost 73 % of the ten biggest producers export to EU in form of cocoa beans (HS 180100). 11 % of the value EU import is cocoa paste, not defatted (HS 180310). Table 2 lists the top ten producers of coco according to harvested quantities in 2012. There are none EU member countries in top ten. This ten biggest producer's stands for 86 % of EU's total import of agricultural cocoa products.

The applied tariffs on processed cocoa are higher than those on coffee, with a maximum of 43 % on some cocoa products. Despite the higher tariff rates on cocoa than on coffee does cocoa producing countries export more processed cocoa to EU than coffee producing countries export processed coffee to EU. The most interesting when it comes to cocoa trade can be seen in appendix 1. Brazils export to EU consist to 88.7 % of cocoa powder, not sweetened (HS 180500), which have a tariff level on 8 % exporting to EU from Brazil while their export of cocoa beans, with a zero tariff rate stands for 5.2 % of their EU-related cocoa export.

Commodity (HS), Cocoa	Value of EU:s import from the 10 biggest producer (2012, US dollar)	The products share of value as % of EU:s import from the 10 biggest producer	Value of EU:s total import (2012, US dollar)	The products share of value as % of EU:s total import	EU:s import from the 10 biggest producer as % of EU:s total import
180100	3 779 842 833	72,889%	4 041 732 666	67,058%	93,5204%
180200	3 770 137	0,073%	4 105 831	0,068%	91,8240%
180310	579 021 043	11,166%	632 112 962	10,488%	91,6009%
180320	221 583 570	4,273%	233 519 005	3,874%	94,8889%
180400	434 006 651	8,369%	580 027 309	9,623%	74,8252%
180500	134 814 763	2,600%	161 959 660	2,687%	83,2397%
180610	32 129 139	0,620%	35 174 393	0,584%	91,3424%
180631	79 604	0,002%	58 119 009	0,964%	0,1370%
180632	529 029	0,010%	280 499 780	4,654%	0,1886%
	5 185 776 769	1	6 027 250 615	1	86,0388%

Table 1. Imported value to EU from the ten biggest cocoa producers.

Source: UNcomtrade.

Biggest cocoa producer in tonnes (2012)	
Cote d`Ivore	1 485 882
Ghana	879 348
Indonesia	740 500
Nigeria	383 000
Cameroon	268 941
Brazil	253 211
Ecuador	133 323
Mexico	82 000
Dominican Repul	72 225
Peru	62 492

Table 2. Ten biggest cocoa producers in 2012

Source: FAOSTAT.

As shown in figure 3 is cocoa subject for tariff escalation and some countries suffer from a larger tariff wedge than other. Out of ten countries is it only Brazil that always met the highest allowed tariff, namely the MFN level. Indonesia and Nigeria, which have signed a GSP agreement with EU are the two countries after Brazil that met the highest tariffs. The world's biggest cocoa producer, Côte d'Ivore, have, together with Cameroon, Ghana and Dominican Republic a zero tariffs on all cocoa related products due to the fact that they have signed EPA agreements with EU.

For specific country details on tariff levels for each commodity, each commodity shares of export to EU on country level, the total exported value to EU for each country and the different meaning of the HS number, see appendix 1.

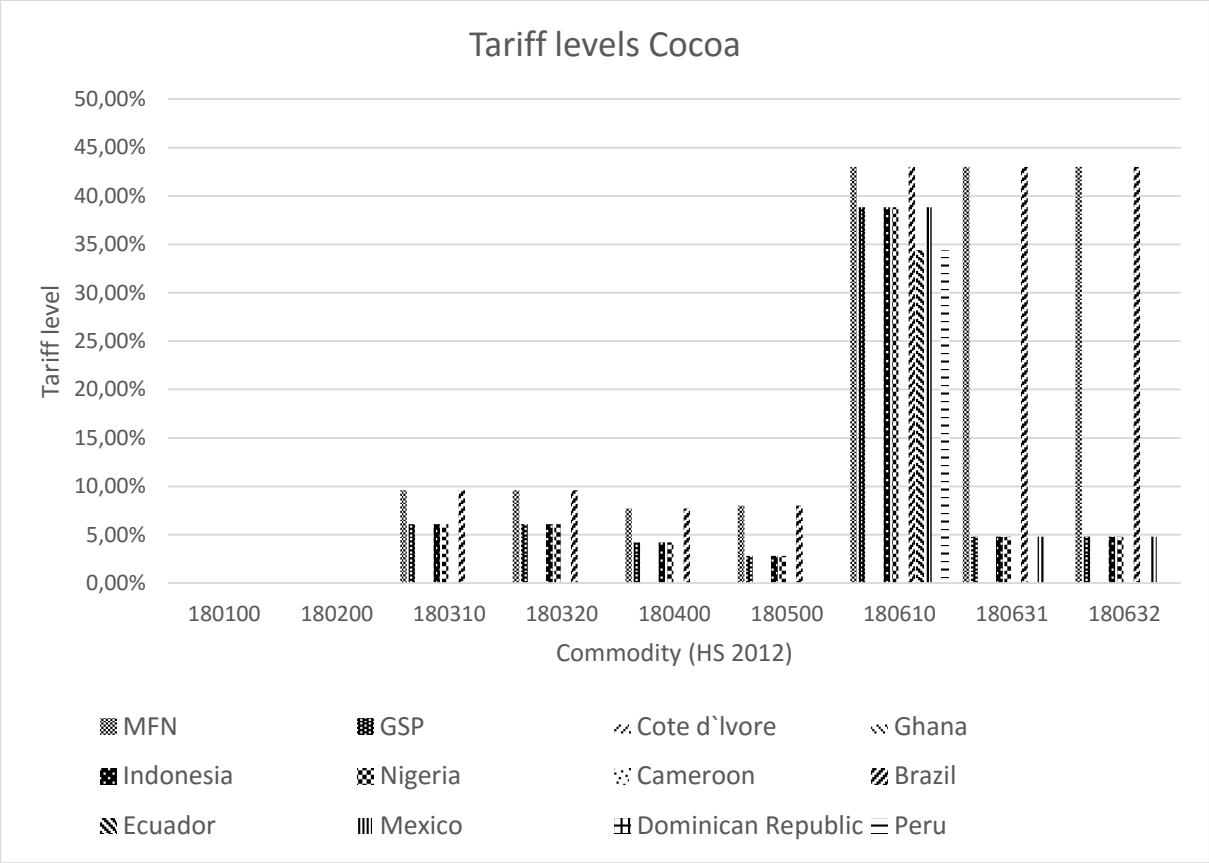

Figure 3. Tariff level for different cocoa products.

Higher HS indicate more processed commodity. Source: Market Access Map.

4.1.2 Coffee

Brazil followed by Viet Nam is by far the world's biggest coffee producer, followed by 8 other developing countries as table 3 show. Table 4 illustrates what the ten biggest coffee producing countries export to EU. Almost 100 % of their export of coffee products to EU is beans (not roasted, not decaffeinated, HS 090111). EU's total import of coffee beans stand for 86.3 % of the import, which indicates that the import from the ten biggest producer consist in a larger part of unprocessed coffee than EU's total import does. However, of EU's total import of coffee, not roasted but decaffeinated (HS 090112), is the import from the ten biggest producer 92.7 % of the total import to EU and 53.7 % of EU's import of coffee husks, skins and substitutes containing coffee (HS 091090) are from these countries.

The highest allowed tariff on a coffee product is 11.5 %, but no country under this research met such high tariff. The highest applied tariff is on coffee husk, skins and substitutes containing coffee which have an 8 % tariff for GSP countries. Even if the applied tariffs is lower on coffee products is coffee the most common product to export as raw commodity (unprocessed coffee beans) All ten countries have an export on coffee related products whose value contains of more than 99 % of coffee beans, even if they have a zero tariff rate on all coffee products (see appendix 2). The only exception is Mexico, which have an export share of decaffeinated, not roasted coffee, on 5 %.

Biggest coffee producer in tonnes (2012)	
Brazil	3 037 534
Viet Nam	1 565 400
Indonesia	691 163
Colombia	462 000
Honduras	343 403
Peru	314 403
India	314 000
Ethiopia	275 530
Guatemala	272 530
Mexico	246 121

Table 3. Ten biggest coffee producers in 2012

Source: FAOSTAT.

Commodity (HS), Coffee	Value of EU:s import from the 10 biggest producer (2012, US dollar)	The products share of value as % of EU:s import from the 10 biggest producer	Value of EU:s total import (2012, US dollar)	The products share of value as % of EU:s total import	EU:s import from the 10 biggest producer as % of EU:s total import
090111	8 570 369 334	99,732%	10 138 239 237	86,290%	84,535%
090112	13 093 497	0,152%	14 131 248	0,120%	92,656%
090121	5 076 394	0,059%	1 438 504 632	12,244%	0,353%
090122	134 323	0,002%	149 418 392	1,272%	0,090%
091090	4 728 297	0,055%	8 801 503	0,075%	53,721%
	8 593 401 845	1	11 749 095 012	1	73,141%

Table 4. Imported value to EU from the ten biggest coffee producers.

Source: UNcomtrade.

Figure 4 display the tariff levels EU has towards the ten biggest producers. None of the biggest coffee beans producer is subjected to MFN tariffs. Brazil, Viet Nam, Indonesia and India are the only countries that pay a duty when exporting to EU. They all have signed GSP agreement with EU that includes coffee products. The other countries have bilateral agreement with EU or have signed an EPA agreement with EU that give them free access to the European coffee market.

For specific country details on tariff levels for every commodity, each commodity shares of export to EU on country level, the total exported value to EU for each country and the different meaning of the HS number, see appendix 2

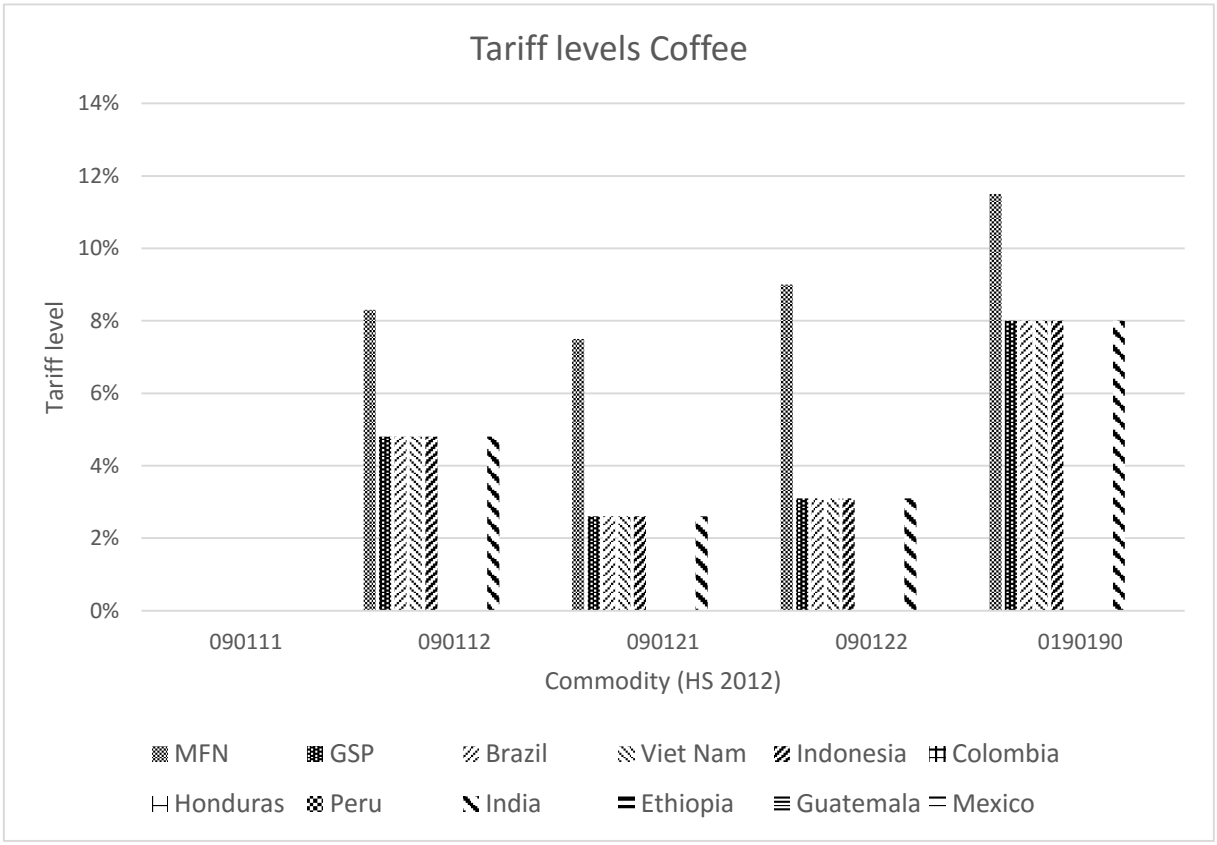

Figure 4. Tariff level for different coffee products.

Higher HS indicate more processed commodity. Source. Market Access Map.

4.1.3 Maize

In table 5 is the ten biggest producers of maize found. USA produces almost 4 times the quantity that Brazil, the world's third biggest producer, does. Some of the biggest maize producers is not developing countries, such all of the ten biggest producers of cocoa and coffee have been. 99 % of the export to EU from the ten biggest producers is plain maize (HS 100590), which is equal to 78.3 % of EU's total import of it.

Biggest maize producer in tonnes (2012)	
USA	273 820 066
China	205 614 100
Brazil	71 072 810
Argentina	23 799 830
India	22 260 000
Mexico	22 069 254
Ukraine	20 961 300
Indonesia	19 387 022
France	15 614 100
Canada	10 060 100

Table 5. Ten biggest producers of maize in 2012.

Source: FAOSTAT.

Commodity (HS), Maize	Value of EU:s import from the 10 biggest producer (2012, US dollar)	The products share of value as % of EU:s import from the 10 biggest producer	Value of EU:s total import (2012, US dollar)	The products share of value as % of EU:s total import	EU:s import from the 10 biggest producer as % of EU:s total import
100590	1 891 745 313	98,995%	2 414 748 551	98,230%	78,341%
110220	1 282 931	0,067%	8 328 646	0,339%	15,404%
110313	212 785	0,011%	6 082 111	0,247%	3,499%
110423	434 862	0,023%	1 253 760	0,051%	34,685%
110812	17 281 402	0,904%	27 841 517	1,133%	62,071%
	1 910 957 293	1	2 458 254 585	1	77,736%

Table 6. Imported value to EU from the ten biggest maize producers.

Source: UNcomtrade.

All of the ten biggest producers, except for France (EU member), pay the highest legal duty when they export to EU, namely the MFN tariff rate, as shown in figure 5. During the years of 2011-2015 did France on average export 45 % of its production of maize (6,3 million tonnes exported). Other EU members accounted for 93 % of the import of French with Spain and the Netherlands as the biggest importer (Jarlegant, 2015). EU's total import of maize related products where in 2012 8,4 million tonnes, which means that the French export to other EU members were three quarters of EU's import from rest of the world.

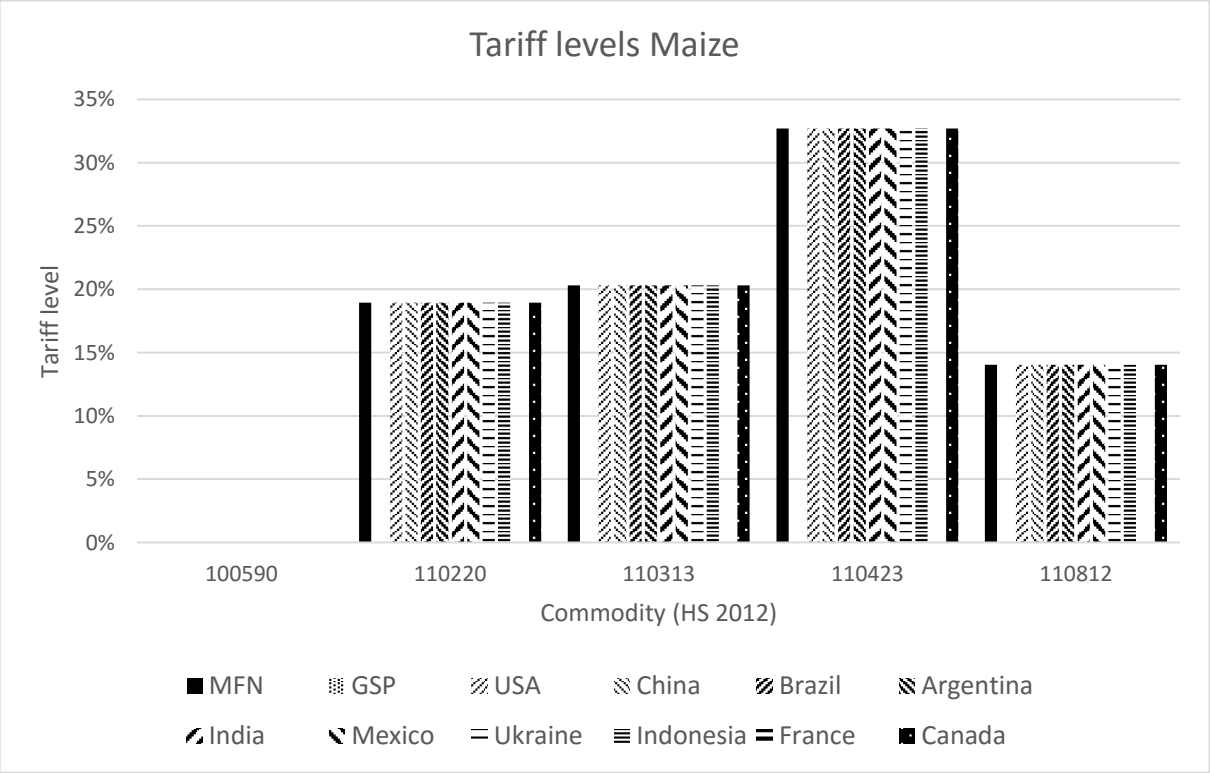

Figure 5. Tariff level for different maize products.

Higher HS indicate more processed commodity. Source: Market Access Map.

For specific country details on tariff levels for every commodity, each commodity shares of export to EU on country level, the total exported value to EU for each country and the different meaning of the HS number, see appendix 3

4.2 Effective Rate of Protection

4.2.1 Cocoa

The effective rate of protection is calculated from cocoa beans (180100) to cocoa paste, not defatted (180310) and cocoa butter, fat and oil (180400). The results are shown in table 7. ERP is only calculated for the countries that met a tariff on the selected products.

ERP Cocoa	180100	180310	180310 ERP	180400	180400 ERP
Indonesia	0%	6,10%	-183%	4,20%	-73,30%
Nigeria	0%	6,10%	20,15%	4,20%	15%
Brazil	0%	9,60%	-20,80%	7,70%	-30,50%

Table 7. ERP for cocoa.

Sources: Eurostat, UNcomtrade and Market Access Map.

4.2.2 Coffee

ERP on coffee is calculated from coffee beans (090111) to coffee roasted, not decaffeinated (090121) and coffee roasted and decaffeinated (090122). The calculation results are shown table 8. ERP is only calculated for the countries that met a tariff on the selected products.

ERP Coffee	090111	090121	090121 ERP	090122	090122 ERP
Brazil	0%	2,60%	5,99%	3,10%	5,54%
Viet Nam	0%	2,60%	3,70%	3,10%	4,03%
Indonesia	0%	2,60%	3,94%	3,10%	4,21%
India	0%	2,60%	4,27%	3,10%	4,46%

Table 8. ERP for coffee.

Sources: Eurostat, UNcomtrade and Market Access Map.

4.2.3 Maize

ERP for maize is calculated for maize (100590) to maize flour (110220) and to maize starch (110812). The results from the calculation is shown in table 9. ERP is only calculated for the countries that met a tariff on the selected products.

ERP Maize	100590	110220	110220 ERP	110812	110812 ERP
USA	0%	18,95%	851,46%	14,03%	57,21%
China	0%	18,95%	-4,60%	14,03%	-4,76%
Brazil	0%	18,95%	41,32%	14,03%	24,10%
Argentina	0%	18,95%	56,73%	14,03%	28,87%
India	0%	18,95%	506,15%	14,03%	54,60%
Mexico	0%	18,95%	719,88%	14,03%	56,48%
Ukraine	0%	18,95%	39,47%	14,03%	24,43%
Indonesia	0%	18,95%	-	14,03%	-
Canada	0%	18,95%	-13%	14,03%	-15,64%

Table 9. ERP for maize.

Sources: Eurostat, UNcomtrade and Market Access Map.

5 Discussion

In this chapter are the result discussed together with the theory and literature review. Questions, like if really the tariff levels have a big effect on which products that is traded, why France export almost as much as the rest of the world to EU and what a fair trade really is are discussed.

Why the export of coffee consists of a larger part of beans than the cocoa export does is hard to tell since the tariff rates are higher on cocoa than on coffee. One possible explanation is giving by Mohan (Institute of Economic Affairs) who mean that is it not the tariff escalation on coffee and cocoa that is the main problem, the main problem is the non-tariff barriers developed countries uses for protection.

For maize is the case very different. Here all producers face the highest legal tariff regardless if they are a developed or a developing country. Tariff escalation exist for all countries exporting maize to EU. France, which was the world's ninth largest maize producer in 2012, exported as much as three quarters of the quantity that EU imported from the rest of the world to EU. This seems to be in line with the aim for CAP, to protect domestic farmers from competition from rest of the world.

As went through in the theory section is free trade the most efficient way to allocate resources. Trade barriers in form of tariffs or non-tariff barriers will be an obstacle for this effective allocation. The idea behind trade barriers is the same that the idea behind CAP – to protect domestic farmers from competition and give them a secure business. Even if there still exist trade barriers in agricultural international trade has it since the ratification of the Uruguay Rounds Agreement of Agriculture radically decreased and as show in figure 1 has the implemented policies gone from highly trade distortions to more trade friendly policies. This can also be viewed in figure 2 where the evolution of CAP is displayed. The evolution show that the most trade distorted policies such as export subsidies and direct market support has been phased out for other policies but that the total sum of the support to farmers is the same 2014 as in 1995.

According to the trade theory is it good that policies that highly interrupt the movement of goods and an effective allocation of resources is put a side for less harmful policies. But is it enough? The results of this research clearly shows that the export from the largest coffee and cocoa producing countries still consist of cocoa beans of coffee beans although the tariffs level on more processed goods is zero. This must of course not depend on the trade policy applied by EU, it could depend on things like lack of capital, trouble to transport perishable goods, best before dates that make is hard to process commodities to far from end customers and so on.

For maize, where farmers in EU still is highly protected, is the existing trade regime a huge obstacle for an effective allocation of resources. If the trade where freer could it have both negative and positive consequences for European farmers but for the worlds aggregated welfare would it be good. As pointed out in the theory section where the aims with CAP, as the European Commission presented it in 1960, that the inter EU trade where supposed to be free from barriers, that the intra EU trade should increase and products from EU should be viewed in a better way than products from outside EU. This is easy to see in the case of maize – the export from France to the rest of EU is around 6.4 million tonnes and EU's import of maize related products from rest of the world is 8.4 million tonnes. This is of course not only just due to the fact that France can sell their products to countries in EU without having to pay

duty, it could also depend on the trade costs that Anderson and Wincoop lists; Currency barrier, policy barrier, language barrier, information barrier and security barrier. France have euro, as many others EU members, agricultural policies is common in EU and French is a common used language in EU. More that point in this direction is that France has since the birth of ECSC integrated with the rest of Europe and therefore have a more common culture and institutions which could makes trade easier. But you never get away from the fact that EU protects its domestic farmers at the expense of farmers outside EU by the use of different trade barriers.

The results gained from the calculation of ERP seems to suffer from some shortcomings. The results on coffee is the only one that does not show a huge discrepancy and large distribution in its results. Instead it shows that the effective rate of protection is between 1 to 3 percentage points bigger than the applied tariff levels is. This is in line with the literature review that suggests that the effective tariff often is higher than the applied one. But the ERP received for roasted, not decaffeinated coffee (090121) in this research is ten percentage points smaller than ICO calculated it to be in 2011 (they calculated a ERP on 14.4 %). The difference can depend on several things, but it probably depends on that ICO calculated on an applied tariff on 7.5 % and not 2.6 %, which is the applied level that Brazil, Viet Nam, Indonesia and India met when they export to EU. When the tariff is changed from 2.6 % to 7.5 % in the model used for this research is ERP increased to 17.3 %, which is near the number ICO gets.

The result on ERP for cocoa seems to be right for Nigeria but wrong for Indonesia and Brazil since the result is suggesting that Indonesia have an effective tariff on -183 % on cocoa paste and -73.3 % on cocoa butter, fat and oil. For Brazil is the effective tariff -20.8 % on cocoa paste and -30.5 % on cocoa butter, fat and oil. This, according to how the results changes when the inputs numbers are varied in the models for calculating ERP, probably depends on that the import price of cocoa beans from these two countries is higher than the price on cocoa beans on the intra EU trade. If the import price on cocoa beans is higher than the price on the intra EU market should not EU be importing from Brazil and Indonesia since the import could be done from another country for a lower price. But as it could be viewed in appendix 1 consist the export from Nigeria to 88.2 % of cocoa beans but only 4.9 % of the export from Indonesia and 5.2 % of Brazils export to EU. 88.7 % of Brazils export consists of cocoa powder and Indonesia's export consists to 51.7 % of cocoa butter and 34.4 % of cocoa paste in different forms. Despite that the tariffs are higher on cocoa butter, fat and oil and cocoa paste than on cocoa beans for Brazil and Indonesia do they export more of these commodities than cocoa beans. There is no explanation for this in the theory or in the literature review so why it is like that is hard to tell.

For the import of maize flour (110220) from Brazil, Argentina and Ukraine give the calculation a satisfied result with an effective tariff that is counted to be between 39.47 % to 56.73 %, compared with the applied tariff on 18.95%. The import of maize starch (110812) has an applied tariff on 14.03% while ERP is in this research calculated to be between 24.1 % to 57.21 % for USA, Brazil, Argentina, India, Mexico and Ukraine. The ERP for maize is therefore well in line with what the literature review pointed out. In the study that Antimiani et al did in 2003 the ERP on cereals where counted to be 56.1 % which is close to the results gained in this research. It is also in line with the policies applied by EU intended to protect European farmers.

But some of the results gained when calculated ERP for maize is probably wrong. Maize starch imports from USA, India and Mexico is calculated to be 851 %, 506 %, and 719 %,

which cannot be truth since they are more than ten times bigger than for the other countries. Probably should the results be 85 %, 50 % and 72 % which is more reasonable results. There has maybe been a miss in the calculation somewhere along the way, even if it feels strange since the data are checked three times. It could also depend on wrong data in the databases used for the calculations or the fact that two different databases has been used when gathering data on quantity and value. Maybe if only one databases had been used hade the result been more reasonable. But due to the timeframe and the trouble finding a database with the intra EU trade was there no time for recalculating the import prices gained from UNcomtrade with data from Eurostat. For a more correct result would it have been preferable if the import prices and intra EU trade prices were gathered from, for example, Eurostat, and not from my own calculations. But, I was not able to find prices and were forced to calculate them by myself. There are also four minus results which have the same explanation as when it happened in the ERP calculation for cocoa.

The aims for CAP is, since 2003, to secure a viable food production and a sustainable management of natural resources. This is a changes from the earlier aims that were to secure a decent income for farmers and protect them from competition. Even if the aims changed in 2003 is the protection of farmers still there and active, which may indicate that the aim for CAP, regardless what it stands in documents, is to protect European farmers and industries.

What is a fair trade? Is it a fair trade when some countries protect its market from competition from outside and in that way support their own farmers and industry? Or is it a fair trade when the trade is free and all farmers and industries from all countries compete without tariff barriers? In the theory is it explained how the export subsidies that EU used for many years improved the life for consumers in developing countries by lowering the world price on agricultural commodities. It could be viewed as fair when European taxpayers pays higher taxes and consumers in developing countries gets lower prices on food. But on the other hand struck these subsidies out farmers in developing countries as they could not produce food at the new lower world price. And that could absolute not be viewed as fair.

Probably is the free trade the fairest trade because it allocates resources at the most effective way, which lead to the highest achievable world social welfare. The way EU, and the rest of the developed world, has act during the post war era has in many ways been far from fair. Trade policies that support domestic production and industry may has served as an obstacle to industrial development in developing countries. In more recent years has the support, as show in this research, decreased and so has the trade distortions. But this have not had such a big impact on which agricultural commodities that is exported from developing countries. Probably are there more trade barriers that must be tear down before a fair trade is accomplished.

6 Conclusions

In this section is the research questions answered to and suggestions for further research is proposed.

The aim for this thesis were to determine if EU uses trade policies and have designed CAP in such a way that it protects farmers and the food processing industry from competition from outside EU. In this section will the two research questions be answered and in that way will the aim for this thesis be fulfilled.

Does tariff escalation exist on coffee, cocoa and maize when imported to EU from the ten largest producing countries of each commodity or not?

The research shown that there in 2012 existed tariff escalation for coffee, cocoa and maize, but not for all countries. Regarding maize is all of the ten largest countries, except for France, exposed for tariff escalation when they export to EU. When exporting cocoa products to EU is mainly Brazil, Indonesia and Nigeria subjects for tariff escalation. When exporting sweetened cocoa powder is however also Ecuador, Mexico and Peru forced to pay a duty.

When exporting processed coffee to EU is Brazil, Viet Nam, Indonesia and India forced to pay a duty, but because tariff escalation first occurs first when the duty is more than five percentage point higher than on the raw commodity is it only when exporting coffee husk that there exists tariff escalation.

Is the food industry inside EU processing coffee, cocoa and maize protected from competition from outside EU?

Here are the results gained in the research pointing at different direction. This is, as discussed in earlier chapter, probably a data fault. The results, both regarding what the literature review says but also what the reasonable results from the research shows, should be that there exist effective rate of protection and because of the is the effective tariff higher than the applied tariffs for all the commodities in the research.

The protection of EU's common market has reduced during the last decades due to international trade agreements and high costs for EU to maintain the policies. This has led to a freer trade where countries easier can trade with each other and resources can be more effective allocated. But even if the tariff has been lower is there still protection when trading with agricultural commodities. This protection may be caused by other things than tariffs, such as non-tariff barriers, high transactions costs caused by bad institutions and currency barrier.

Further research in the subject is possible, for example would it be a good idea to look over several years and see how the export of agricultural commodities towards EU from large producing countries has changed when the applied tariffs has changed. It would also be a good idea how non-tariff barriers affect the protection, since the research indicates that tariffs are not the biggest reason why developing countries do not export more value added products to EU.

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Appendix

1 Tariff rates and exported value of cocoa to EU

HS (2012) code	Product
180100	Cocoa beans, whoile or broken, raw or roasted
180200	Cocoa shells, husks, skins and other cocoa waste
180310	Cocoa paste not defatted
180320	Cocoa paste, defatted or not
180400	Cocoa butter, fat and oil
180500	Cocoa powder, not sweetened
180610	Sweetened cocoa powder
180631	Food preparations containing cocoa (in block, slab, bar form; filled)
180632	Chocolate and other preparations containing cocoa, in blocks, slabs or bars of <= 2 kg, with added cereal, f

Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level
Cote d`Ivore			
2 246 373 837	180100	66,795%	0,00%
	180200	0,003%	0,00%
	180310	16,436%	0,00%
	180320	4,870%	0,00%
	180400	7,554%	0,00%
	180500	2,918%	0,00%
	180610	1,425%	0,00%
	180631	0,000%	0,00%
	180632	0,000%	0,00%
Nigeria			
461 466 701	180100	88,164%	0,00%
	180200	0,003%	0,00%
	180310	0,023%	6,10%
	180320	5,839%	6,10%
	180400	5,965%	4,20%
	180500	0,005%	2,80%
	180610	0,000%	38,83%
	180631	0,000%	4,80%
	180632	0,000%	4,80%
Ecuador			
152 894 008	180100	85,651%	0,00%
	180200	0,064%	0,00%
	180310	4,155%	0,00%
	180320	2,760%	0,00%
	180400	6,999%	0,00%
	180500	0,129%	0,00%
	180610	0,005%	34,33%
	180631	0,002%	0,00%
	180632	0,235%	0,00%
Peru			
70 333 554	180100	79,177%	0,00%
	180200	0,815%	0,00%
	180310	0,585%	0,00%
	180320	0,960%	0,00%
	180400	17,227%	0,00%
	180500	1,118%	0,00%
	180610	0,009%	34,33%
	180631	0,028%	0,00%
	180632	0,081%	0,00%

Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level
Ghana			
1 567 673 341	180100	77,786%	0,00%
	180200	0,171%	0,00%
	180310	10,915%	0,00%
	180320	2,333%	0,00%
	180400	6,376%	0,00%
	180500	2,418%	0,00%
	180610	0,002%	0,00%
	180631	0,000%	0,00%
	180632	0,000%	0,00%
Cameroon			
429 235 835	180100	87,338%	0,00%
	180200	0,001%	0,00%
	180310	3,355%	0,00%
	180320	1,997%	0,00%
	180400	7,283%	0,00%
	180500	0,027%	0,00%
	180610	0,000%	0,00%
	180631	0,000%	0,00%
	180632	0,000%	0,00%
Mexico			
2 215 606	180100	35,109%	0,00%
	180200	0,000%	0,00%
	180310	6,666%	0,00%
	180320	0,878%	0,00%
	180400	53,544%	0,00%
	180500	0,006%	0,00%
	180610	2,539%	38,83%
	180631	0,028%	4,80%
	180632	1,231%	4,80%

Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level
Indonesia			
151 929 537	180100	4,914%	0,00%
	180200	0,037%	0,00%
	180310	11,305%	6,10%
	180320	23,156%	6,10%
	180400	51,720%	4,20%
	180500	8,867%	2,80%
	180610	0,000%	38,83%
	180631	0,000%	4,80%
	180632	0,000%	4,80%
Brazil			
18 868 751	180100	5,223%	0,00%
	180200	0,860%	0,00%
	180310	0,062%	9,60%
	180320	0,000%	9,60%
	180400	4,348%	7,70%
	180500	88,700%	8,00%
	180610	0,087%	43,00%
	180631	0,292%	43,00%
	180632	0,428%	43,00%
Dominican Republic			
84 785 599	180100	97,130%	0,00%
	180200	0,141%	0,00%
	180310	0,117%	0,00%
	180320	0,000%	0,00%
	180400	2,571%	0,00%
	180500	0,031%	0,00%
	180610	0,006%	0,00%
	180631	0,000%	0,00%
	180632	0,005%	0,00%

2 Tariff rates and exported value of coffee to EU

HS (2012)	Product
090111	Coffee (Not Roasted, Not Decaffeinated)
090112	Coffee (Not Roasted, Decaffeinated)
090121	Coffee (Roasted, Not Decaffeinated)
090122	Coffee (Roasted, Decaffeinated)
0190190	Coffee husks and skins, substitute contaning coffee

Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level	Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level	Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level
Brazil				Viet Nam				Indonesia			
3 291 404 941	90111	99,844%	0,00%	1 628 681 670	90111	99,751%	0,00%	309 950 263	90111	99,653%	0,00%
	90112	0,005%	4,80%		90112	0,216%	4,80%		90112	0,000%	4,80%
	90121	0,095%	2,60%		90121	0,018%	2,60%		90121	0,016%	2,60%
	90122	0,001%	3,10%		90122	0,004%	3,10%		90122	0,000%	3,10%
	91090	0,055%	8,00%		91090	0,012%	8,00%		91090	0,330%	8,00%
Colombia				Honduras				Peru			
520 896 759	90111	99,135%	0,00%	914 007 279	90111	99,904%	0,00%	701 276 912	90111	99,994%	0,00%
	90112	0,499%	0,00%		90112	0,000%	0,00%		90112	0,005%	0,00%
	90121	0,246%	0,00%		90121	0,002%	0,00%		90121	0,001%	0,00%
	90122	0,004%	0,00%		90122	0,000%	0,00%		90122	0,000%	0,00%
	91090	0,115%	0,00%		91090	0,093%	0,00%		91090	0,000%	0,00%
India				Ethiopia				Guatemala			
419 682 696	90111	99,945%	0,00%	425 683 660	90111	99,945%	0,00%	248 432 145	90111	99,973%	0,00%
	90112	0,001%	4,80%		90112	0,000%	0,00%		90112	0,000%	0,00%
	90121	0,018%	2,60%		90121	0,030%	0,00%		90121	0,027%	0,00%
	90122	0,004%	3,10%		90122	0,000%	0,00%		90122	0,000%	0,00%
	91090	0,031%	8,00%		91090	0,026%	0,00%		91090	0,000%	0,00%
Mexico											
133 385 520	90111	94,900%	0,00%								
	90112	5,071%	0,00%								
	90121	0,025%	0,00%								
	90122	0,001%	0,00%								
	91090	0,003%	0,00%								

3 Tariff rates and exported value of maize to EU

HS (2012) code	Product
100590	Maize (excl. seed)
110220	Maize flour, with fat content of <= 1,5% by weight
110313	"Groats and meal of maize, ""corn"", with a fat content, by weight, of <= 1,5%"
110423	Hulled maize grains, even sliced or kibbled; pearled maize grains
110812	Maize starch

Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level	Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level	Total export to EU (2012, US dollar)	Where commodity stands for X% of the value		Tariff level
USA				China				Brazil			
36 207 700	100590	58,688%	0%	278 995	100590	12,817%	0%	107 264 813	100590	99,025%	0%
	110220	1,005%	18,95%		110220	8,072%	18,95%		110220	0,039%	18,95%
	110313	0,070%	20,32%		110313	0,885%	20,32%		110313	0,021%	20,32%
	110423	0,059%	32,70%		110423	0,539%	32,70%		110423	0,362%	32,70%
	110812	40,178%	14,03%		110812	77,687%	14,03%		110812	0,553%	14,03%
Argentina				India				Mexico			
143 484 822	100590	98,822%	0%	936 204	100590	68,826%	0%	827 422	100590	0,555%	0%
	110220	0,004%	18,95%		110220	8,265%	18,95%		110220	92,686%	18,95%
	110313	0,040%	20,32%		110313	3,110%	20,32%		110313	5,978%	20,32%
	110423	0,006%	32,70%		110423	0,000%	32,70%		110423	0,000%	32,70%
	110812	1,128%	14,03%		110812	19,798%	14,03%		110812	0,781%	14,03%
Ukraine				Indonesia				Canada			
1 621 585 409	100590	99,998%	0%	51	100590	0,000%	0%	371 877	100590	65,355%	0%
	110220	0,000%	18,95%		110220	0,000%	18,95%		110220	1,061%	18,95%
	110313	0,000%	20,32%		110313	0,000%	20,32%		110313	6,395%	20,32%
	110423	0,000%	32,70%		110423	0,000%	32,70%		110423	3,100%	32,70%
	110812	0,001%	14,03%		110812	100 %	14,03%		110812	24,088%	14,03%